

Constraints:

The children of the fo:page-sequence-master are a sequence of *sub-sequence-specifiers*. A page-sequence satisfies the constraint determined by an fo:page-sequence-master if (a) it can be partitioned into a sequence of sub-sequences of pages that map one-to-one to an initial sub-sequence of the sequence of sub-sequence-specifiers that are the children of the fo:page-sequence-master and, (b) for each sub-sequence of pages in the partition, that sub-sequence satisfies the constraints of the corresponding sub-sequence-specifier. The sequence of sub-sequences of pages can be shorter than the sequence of sub-sequence-specifiers.

It is an error if the entire sequence of sub-sequence-specifiers children is exhausted while some areas returned by an fo:flow are not placed. Implementations may recover, if possible, by re-using the sub-sequence-specifier that was last used to generate a page.

Contents:

(single-page-master-reference|repeatable-page-master-reference|repeatable-page-master-alternatives) +

The following properties apply to this formatting object:

- “master-name” — § 7.25.8 on page 304

6.4.8. fo:single-page-master-reference

Common Usage:

An fo:single-page-master-reference is the simplest sub-sequence-specifier. It specifies a sub-sequence consisting of a single instance of a single page-master. It is used to specify the use of a particular page-master at a given point in the sequence of pages that would be generated using the fo:page-sequence-master that is the parent of the fo:single-page-master-reference.

Areas:

The fo:single-page-master-reference formatting object generates no area directly. It is used by the fo:page-sequence formatting object to generate pages.

Constraints:

The fo:single-page-master-reference has a reference to the fo:simple-page-master which has the same master-name as the *master-reference* trait on the fo:single-page-master-reference.

The sub-sequence of pages mapped to this sub-sequence-specifier satisfies the constraints of this sub-sequence-specifier if (a) the sub-sequence of pages consists of a single page and (b) that page is constrained to have been generated using the fo:simple-page-master referenced by the fo:single-page-master-reference.

Contents:

EMPTY

The following properties apply to this formatting object:

- “master-reference” — § 7.25.9 on page 304

6.4.9. fo:repeatable-page-master-reference

Common Usage:

An fo:repeatable-page-master-reference is the next simplest sub-sequence-specifier. It specifies a sub-sequence consisting of repeated instances of a single page-master. The number of repetitions may be bounded or potentially unbounded.

Areas:

The `fo:repeatable-page-master-reference` formatting object generates no area directly. It is used by the `fo:page-sequence` formatting object to generate pages.

Constraints:

The `fo:repeatable-page-master-reference` has a reference to the `fo:simple-page-master` which has the same master-name as the *master-reference* trait on the `fo:repeatable-page-master-reference`.

The sub-sequence of pages mapped to this sub-sequence-specifier satisfies the constraints of this sub-sequence-specifier if (a) the sub-sequence of pages consists of zero or more pages, (b) each page is generated using the `fo:simple-page-master` referenced by the `fo:repeatable-page-master-reference`, and (c) length of the sub-sequence is less than or equal to the value of *maximum-repeats*.

If no region-master child of the `fo:repeatable-page-master` has a region-name associated to any flow in an `fo:page-sequence`, then the sub-sequence is constrained to have length zero.

Contents:

EMPTY

The following properties apply to this formatting object:

- “*master-reference*” — § 7.25.9 on page 304
- “*maximum-repeats*” — § 7.25.10 on page 305

6.4.10. `fo:repeatable-page-master-alternatives`

Common Usage:

The `fo:repeatable-page-master-alternatives` formatting object is the most complex sub-sequence-specifier. It specifies a sub-sequence consisting of repeated instances of a set of alternative page-masters. The number of repetitions may be bounded or potentially unbounded. Which of the alternative page-masters is used at any point in the sequence depends on the evaluation of a condition on the use of the alternative. Typical conditions include, testing whether the page which is generated using the alternative is the first or last page in a page-sequence or is the page blank. The full set of conditions allows different page-masters to be used for the first page, for odd and even pages, for blank pages.

 Because the conditions are tested in order from the beginning of the sequence of children, the last alternative in the sequence usually has a condition that is always true and this alternative references the page-master that is used for all pages that do not receive some specialized layout.

Areas:

The `fo:repeatable-page-master-alternatives` formatting object generates no area directly. This formatting object is used by the `fo:page-sequence` formatting object to generate pages.

Constraints:

The children of the `fo:repeatable-page-master-alternatives` are `fo:conditional-page-master-references`. These children will be called *alternatives*.

The sub-sequence of pages mapped to this sub-sequence-specifier satisfies the constraints of this sub-sequence-specifier if (a) the sub-sequence of pages consists of zero or more pages, (b) each page is generated using the `fo:simple-page-master` referenced by the one of the alternatives that are the children of the `fo:repeatable-page-master-alternatives`, (c) the conditions on that alternative are *true*, (d) that alter-

native is the first alternative in the sequence of children for which all the conditions are *true*, and (e) the length of the sub-sequence is less than or equal to the value of *maximum-repeats*.

Contents:

(conditional-page-master-reference+)

The following properties apply to this formatting object:

- “maximum-repeats” — § 7.25.10 on page 305

6.4.11. fo:conditional-page-master-reference

Common Usage:

The fo:conditional-page-master-reference is used to identify a page-master that is to be used when the conditions on its use are satisfied. This allows different page-masters to be used, for example, for even and odd pages, for the first page in a page-sequence, or for blank pages. This usage is typical in chapters of a book or report where the first page has a different layout than the rest of the chapter and the headings and footings on even and odd pages may be different as well.

Areas:

The fo:conditional-page-master-reference formatting object generates no area directly. It is used by the fo:page-sequence formatting object to generate pages.

Constraints:

The fo:conditional-page-master-reference has a reference to the fo:simple-page-master which has the same master-name as the *master-reference* trait on the fo:conditional-page-master-reference.

There are three traits, *page-position*, *odd-or-even*, and *blank-or-not-blank* that specify the sub-conditions on the use of the referenced page-master. All three sub-conditions must be *true* for the condition on the fo:conditional-page-master-reference to be *true*. Since the properties from which these traits are derived are not inherited and the initial value of all the properties makes the corresponding sub-condition *true*, this really means that the subset of traits that are derived from properties with specified values must make the corresponding sub-condition *true*.

The sub-condition corresponding to the *page-position* trait is *true* if the page generated using the fo:conditional-page-master-reference has the specified position in the sequence of pages generated by the referencing page-sequence; namely, "first", "last", "rest" (not first nor last) or "any" (all of the previous). The *referencing page-sequence* is the fo:page-sequence that referenced the fo:page-sequence-master from which this fo:conditional-page-master-reference is a descendant.

The sub-condition corresponding to the *odd-or-even* trait is *true* if the value of the *odd-or-even* trait is "any" or if the value matches the parity of the page number of the page generated using the fo:conditional-page-master-reference.

The sub-condition corresponding to the *blank-or-not-blank* trait is *true*, if (1) the value of the trait is "not-blank" and the page generated using the fo:conditional-page-master-reference has areas generated by descendants of the fo:flow formatting object; if (2) the value of the trait is "blank" and the page generated using the fo:conditional-page-master-reference is such that there are no areas from the fo:flow to be put on that page (e.g., (a) to maintain proper page parity due to (i) a break-after or break-before value of "even-page" or "odd-page" or (ii) at the start or end of the page-sequence or (b) because the constraints on the areas generated by descendants of the fo:flow formatting object would not be satisfied if they were descendant from this page); or if (3) the value of the trait is "any".

 If any page-master referenced from a conditional-page-master-reference with blank-or-not-blank="true" provides a region in which to put fo:flow content, no content is put in that region.

Contents:

EMPTY

The following properties apply to this formatting object:

- “master-reference” — § 7.25.9 on page 304
- “page-position” — § 7.25.14 on page 308
- “odd-or-even” — § 7.25.12 on page 307
- “blank-or-not-blank” — § 7.25.1 on page 300

6.4.12. fo:simple-page-master

Common Usage:

The fo:simple-page-master is used in the generation of pages and specifies the geometry of the page. The page may be subdivided into up to five regions: region-body, region-before, region-after, region-start, and region-end.

 For example, if the *writing-mode* of the fo:simple-page-master is "lr-tb", then these regions correspond to the body of a document, the header, the footer, the left sidebar, and the right sidebar.

 The simple-page-master is intended for systems that wish to provide a simple page layout facility. Future versions of this Recommendation will support more complex page layouts constructed using the fo:page-master formatting object.

Areas:

The fo:simple-page-master formatting object generates no area directly. It is used in the generation of pages by an fo:page-sequence.

When the fo:simple-page-master is used to generate a page, a viewport/reference pair is generated, consisting of a page-viewport-area and a page-reference-area. The page-viewport-area represents the physical bounds of the output medium. The page-reference-area represents the portion of the page on which content is intended to appear; that is, the area inside the page margins.

In addition, when the fo:simple-page-master is used to generate a page, viewport/reference pairs that correspond to the regions that are the children of the fo:simple-page-master are also generated. (See the formatting object specifications for the five regions (§ 6.4.13 – fo:region-body on page 84, § 6.4.14 – fo:region-before on page 87, § 6.4.15 – fo:region-after on page 88, § 6.4.16 – fo:region-start on page 89, and § 6.4.17 – fo:region-end on page 91) for the details on the generation of these areas.)